

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

**Applicant** 

David Y. Zhang

NOV 2 2 2002

Application No.:

09/978,261

Art Unit No.

1645

TECH CENTER 1600/2900

Filed

For

October 15, 2001

Examiner

Not Yet

NUCLEIC ACID AMPLIFICATION METHODS

Assigned

Plunkott
Date: November 18, 2002 11 26/02

Commissioner for Patents Washington, DC 20231

Sir:

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicants respectfully submit this Supplemental Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.97 and 1.98 in order to comply with the duty of disclosure under 37 C.F.R. § 1.56. The Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Information Disclosure Statement by Applicant (Form PTO-1449) be returned indicating that such information has been considered.

## Certificate of Mailing (37 C.F.R. 1.8)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, Washington, D.C. 20231, on November 18, 2002.

Typed or printed name of person signing this certificate:

Jennifer Bartolo

Signature:

SSL-DOCS1 1282032v1

US Serial No.09/978,261 Filed: October 15, 2001 Page:2



The references listed on Form PTO-1449 were cited in a communication from the European Patent Office dated October 14, 2002, a copy of which is submitted herewith.

A copy of each of the following references is enclosed herewith.

- 1. WO 95/35390, Publication date: 12/28/95.
- 2. Hsuih, T, et al. Novel, ligation-dependent PCR assay for detection of hepatitis C virus in serum. J. of Clin. Microbio. 34(3): 501-507, 1996.
- 3. Zhang, DY, et al. Amplification of target-specific ligation-dependent circular probe. Gene, 211(2): 277-285, 1998.

To the best of the undersigned's knowledge, this Supplemental Information Disclosure Statement is being filed prior to the issuance of a first office action, and so is submitted in accordance with 37 C.F.R. § 1.97(b)(3).

#### **CONCLUSION**

No fee is deemed necessary in connection with the filing of this Supplemental Information Disclosure Statement. However, if any fee is due the amount of such fee may be charged to Deposit Account No. 19-4709.

Respectfully submitted,

Steven B. Pokotilow ( Registration No. 26,405

Attorney for Applicant

STROOCK & STROOCK & LAVAN, LLP

Reg No. 37, 306

180 Maiden Lane

New York, New York 10038-4982

(212)806-5400

| <u>-</u>  |          |   | 611              | PE            | \  | <b>.</b>                          |                   | #12                        |
|---|----------|---|------------------|---------------|--|-----------------------------------|-------------------|----------------------------|
| FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE |          |   | 1 2002           |               |  | APPLICATION NO. <b>09/978,261</b> |                   |                            |
| PAT   | TENT AND | D TRADEMARK OFFIC                                 | CE PRE           | ادم           | David Y. Zhang   |                                   |                   |                            |
| LIS   |          | ERENCES CITED BY A<br>Jse several sheets if neces |                  | <u>JEMARI</u> | FILING DATE October 15, 2001   |                                   | GROUP<br>1645 (63 | ユ                          |
|   |          |   |                  |               |  |                                   | 10.0 (0)          | 1                          |
| EXAMINER<br>INITIAL                                   |          | DOCUMENT<br>NUMBER                                | DATE             |               | U.S. PATENT DOCUMENTS  NAME  | CLASS                             | SUBCLASS          | FILING DATE IF APPROPRIATE |
|   |          |   |                  |               |  |                                   | REC               | EIVED                      |
| 912E  | 3        |   |                  |               |  |                                   | NOV 2             |                            |
| NOV 2 1 200   | 12 30    |   |                  |               |  |                                   | TECH CENT         | ER 1600/2900               |
| And the second  | E S      |   |                  |               |  |                                   | LONG              |                            |
| HAUL  |          |   |                  |               |  |                                   |                   |                            |
|   |          |   |                  |               |  |                                   |                   |                            |
|   |          |   |                  |               |  |                                   |                   |                            |
|   |          |   |                  | FOI           |  |                                   |                   |                            |
|   |          | DOCUMENT<br>NUMBER                                | DATE             | FOK           | REIGN PATENT DOCUMENTS  COUNTRY  | CLASS                             | SUBCLASS          | TRANSLATION<br>YES/NO/     |
|   | :        | EP 0359789  | 03/28/90         |               | EPO not provide  | ,                                 |                   | OR ABSTRACT                |
|   | /        | WO 95/35390                                       | 12/28/95         |               | PCT  |                                   |                   |                            |
|   |          |   |                  |               |  |                                   |                   |                            |
|   | _        |   |                  |               |  |                                   |                   |                            |
| _   |          |   |                  |               |  |                                   |                   |                            |
|   |          |   |                  |               |  | !                                 |                   |                            |
|   |          | Fire, A. et al., 4645, 1995.                      | Rolling Repli    | icatio        | on of Short DNA Circles, Proc. No. 100 Circle | )<br>Natl. Acad.                  | Sci. USA, 92      | :: 4641-                   |
|   | /        |   | l. Novel, ligati | ion-d         | ependent PCR assay for detection   | on of hepa                        | titis C virus i   | n serum. J.                |
|   |          | Lizardi, PM, 6<br>Circle Amplif                   | et al., Mutatio  | n De<br>re Ge | enetics, 19: 225-232, 1998.  | unting Using                      | ng Isotherma      | al Rolling-                |
|   | V        | Zhang, DY, et 277-285, 1998.                      | t al. Amplifica  | ition         | of target-specific ligation-depen  | dent circu                        | lar probe. Ge     | ene, 211(2):               |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

Sheet $\underline{1}$  of  $\underline{1}$ 

EXAMINER



# SUPPLEMENTARY EUROPEAN SEARCH REPORT

|          | DOCUMENTS CONSIDE  | RED TO BE RELEVAN  | 1 2 1   | CLASSIFICATION OF THE                                       |  |  |
|----------|--|--|---|---|--|--|
| ategory  | Citation of document with ind of relevant passa  | ication, where appropriate,  | Relevant<br>to claim  | APPLICATION (Int.Cl.6)                                      |  |  |
| X        | WO 95 35390 A (SINAI<br>ZHANG DAVID Y (US))<br>28 December 1995 (19  | SCHOOL MEDICINE;   | 1-4,6,<br>8-21  | C1201/68<br>C1201/70<br>C12P19/34<br>C07H21/02<br>C07H21/04 |  |  |
| Υ        | * see especially cla   | fills 1-30, 11g. /   |   |   |  |  |
| Y        | EP 0 359 789 A (GENE<br>28 March 1990 (1990-<br>* the whole document   | ·03-28)<br>· *<br>   | 5,7   |   |  |  |
| <b>Y</b> | HSUIH T ET AL: "Now<br>PCR assay for detect<br>virus in serum."<br>JOURNAL OF CLINICAL<br>vol. 34, no. 3, Marc<br>pages 501-507, XP002<br>* the whole document   | MICROBIOLOGY,<br>th 1996 (1996-03),<br>2214805   | ent 1-21  |   |  |  |
| Y        | FIRE A ET AL: "Rôll short DNA circles" PROCEEDINGS OF THE NSCIENCES OF USA, NATSCIENCE. WASHINGTON vol. 92, no. 10, 9 Npages 4641-4645, XPO ISSN: 0027-8424 * the whole document                               | NATIONAL ACADEMY OF<br>FIONAL ACADEMY OF<br>, US,<br>May 1995 (1995-05-09<br>DO2112409 |   | TECHNICAL FIELDS SEARCHED (Int.Ci.6) C12Q                   |  |  |
| P,X      | WO 97 19193 A (UNIV 29 May 1997 (1997-0) * the whole documen 4, 13 *  The supplementary search reporset of claims valid and available  | t, especially Fig.   -/  | 1,2,6   |   |  |  |
|          | set of claims valid and available  | Date of completion of the  | search  | Examiner  |  |  |
|          | Place of search THE HAGUE  | 14 October   |   | Pinta, V  |  |  |
| Y:1      | CATEGORY OF CITED DOCUMENTS particularly relevant if taken alone particularly relevant if combined with ano locument of the same category echnological background non-written disclosure intermediate document | T: theory E: earlier after th  D: docum L: docum                                       | or principle underly<br>palent document, be<br>tiling date<br>sent cited in the app<br>ent cited for other r<br>er of the same pate | olication   |  |  |



|  | Citation of document with in  | ERED TO BE RELEVANT ndication, where appropriate, | Releva  |                     | CLASSIFICATION OF THE APPLICATION (InLCI.6) |  |  |
|--|---|---|---|---------------------|---|--|--|
| Category   | of relevant pass  | ages  | to clain  | <del>''   -</del>   | <u> </u>                                    |  |  |
| т  | ZHANG D Y ET AL: "  | Amplification of                                  |   |                     |   |  |  |
|  | target-specific, li   | gation-dependent                                  |   | İ                   |   |  |  |
|  | circular probe"   | NAL JOURNAL ON GENES                              |   |                     |   |  |  |
|  | GENE: AN INTERNATION  | ER SCIENCE PUBLISHERS                             |   |                     |   |  |  |
|  | DADKING GR.   |   |   |                     |   |  |  |
|  | 101 211 no. 2. 12   | May 1998 (1998-05-12                              | ),  |                     |   |  |  |
|  | Dages 277-285, XP00   | 4120590   |   |                     |   |  |  |
|  | ISSN: 0378-1119   |   |   |                     |   |  |  |
| т  | ITZARDI PM ET AL:   | "Mutation detection a                             | nd  |                     |   |  |  |
|  | cinale-molecule cou   | nting using isotnerma                             | 1   | Ì                   |   |  |  |
|  | rolling-circle ampl   | itication"  |   |                     | •   |  |  |
|  | NATURE GENETICS,<br>vol. 19, July 1998                              | (1998-07), pages                                  |   |                     | •   |  |  |
|  | 225-232, XP00085633   | 9   |   |                     |   |  |  |
| İ  | * figure 4 *  |   |   | .                   |   |  |  |
|  |   |   |   |                     |   |  |  |
|  | •   |   |   | -                   | TECHNICAL FIELDS                            |  |  |
|  |   |   |   | L                   | SEARCHED (Int.CI.6)                         |  |  |
|  |   |   |   | ļ                   | •   |  |  |
|  |   |   |   |                     |   |  |  |
|  |   |   |   |                     |   |  |  |
|  |   |   |   |                     | ×   |  |  |
|  |   |   |   | l                   |   |  |  |
|  |   |   |   |                     |   |  |  |
|  |   |   |   |                     |   |  |  |
|  |   |   |   |                     |   |  |  |
|  |   |   |   |                     |   |  |  |
|  | •   |   |   |                     |   |  |  |
|  |   | •   | ļ   |                     |   |  |  |
|  |   |   | l.  |                     |   |  |  |
|  |   |   |   |                     |   |  |  |
|  |   |   |   |                     |   |  |  |
|  | The supplementary search report set of claims valid and available a |   |   |                     |   |  |  |
|  | Place of search   | Date of completion of the sear                    | on  |                     | Examiner                                    |  |  |
| THE HAGUE  |   | 14 October 20                                     | 02  | Pir                 | Pinta, V                                    |  |  |
|  | ATEGORY OF CITED DOCUMENTS  | T : theory or p                                   | rinciple underl   | ying the<br>but pub | invention<br>lished on, or                  |  |  |
| X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document |   | after the fil                                     | E : earlier patent document, but published on, or after the filing date  D : document cited in the application L : document cited for other reasons  8 : member of the same patent family, corresponding document |                     |   |  |  |
|  |   | L : document                                      |   |                     |   |  |  |
|  |   | & : member o                                      |   |                     |   |  |  |

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-10-2002

| Patent docume<br>cited in search re | ent<br>eport | Publication date |          | Patent family member(s)  | Publication date         |
|-------------------------------------|--------------|------------------|----------|--------------------------|--------------------------|
| WO 9535390                          | Α            | 28-12-1995       | EP       | 0717782 A1               | 26-06-1996               |
|                                     |              |                  | WO       | 95353 <b>90 A1</b>       | 28-12-1995               |
|                                     |              |                  | US       | 59423 <b>9</b> 1 A       | 24-08-1999               |
|                                     |              |                  | US       | 5876924 A                | 02-03-1999               |
| EP 0359789                          | A            | 28-03-1990       | AT       | 92538 T                  | 15-08-1993               |
|                                     |              |                  | ΑU       | 3058589 A                | 11-08-1989               |
| •                                   |              |                  | ΑU       | 624601 B2                | 18-06-1992               |
| •                                   |              |                  | DE       | 68908054 D1              | 09-09-1993               |
|                                     |              |                  | DE       | 68908054 T2              | 10-03-1994               |
|                                     |              |                  | DK       | 463089 A                 | 20-09-1989               |
|                                     |              |                  | ÉP       | 03597 <b>89 A1</b>       | 28-03-1990               |
|                                     |              |                  | ES       | 2010094 A6               | 16-10-1989               |
|                                     |              |                  | JP       | 20067 <b>24 A</b>        | 10-01-1990               |
|                                     |              |                  | JP       | 110896 <b>00 A</b>       | 06-04-1999               |
|                                     |              |                  | JP       | 2503054 T                | 27-09-1990               |
|                                     |              | •                | JP       | 2846018 B2               | 13-01-1999               |
|                                     |              |                  | NO       | 8935 <b>83</b> A         | 06-09-1989               |
|                                     |              |                  | NZ       | 227688 A                 | 26-03-1991               |
|                                     |              |                  | WO       | 8906700 A1               | 27-07-1989               |
| WO 9719193                          | Α            | 29-05-1997       | US       | 5854033 A                | 29-12-1998               |
|                                     |              |                  | ΑT       | 199572 T                 | 15-03-2001               |
|                                     |              |                  | AU       | 714486 B2                | 06-01-2000               |
|                                     |              |                  | AU       | 1024097 A                | 11-06-1997               |
|                                     |              |                  | DE       | 69612013 D1              | 12-04-2001               |
|                                     |              |                  | DE       | 69612013 T2              | 02-08-2001               |
|                                     |              |                  | DK       | 862656 T3                | 09-04-2001               |
| •                                   |              | •                | EP       | 0862656 A1               | 09-09-1998               |
|                                     |              |                  | JP       | 2002503948 T             | 05-02-2002<br>29-05-1997 |
|                                     |              |                  | WO       | 9719193 A2               | 29-05-1997<br>06-02-2001 |
|                                     |              |                  | US       | 6183960 B1               | 03-04-2001               |
|                                     |              |                  | US       | 6210884 B1<br>6329150 B1 | 11-12-2001               |
|                                     |              |                  | US       |                          | 05-02-2002               |
|                                     |              |                  | US<br>US | 6344329 B1<br>6143495 A  | 05-02-2002               |
|                                     |              |                  | U.S      | 0143430 W                | 07-11-2000               |